

EXECUTIVE SUMMARY

Prepared October 9, 1996

Mine Name: <u>Asphalt Ridge Tar Sands Project</u>	I.D. No.: <u>M/047/032</u>
Operator: <u>Buena Ventura Resources Corporation</u>	County: <u>Uintah</u>
<u>215 South State Street, Suite 550</u>	New/Existing: <u>Existing</u>
<u>Salt Lake City, Utah 84111</u>	Mineral Ownership: <u>Private</u>
	Surface Ownership: <u>Private</u>
Telephone: <u>(801) 537-5610</u> Fax <u>(801) 537-5609</u>	Lease No.(s): <u>N/A</u>
Contact Person: <u>Thomas Bachtell, President</u>	Permit Term: <u>Life of Mine</u>

Life of Mine: Approximately 11 years

Legal Description: NE1/4 of Section 31, and the S1/2 of the SE1/4 of Section 30, Township 4 South, Range 21 East, Uintah County

Mineral(s) to be Mined: Tar Sands

Acres to be Disturbed: 25.5 acres in five years, 43 acres over the projected life of the mine.

Present Land Use: Mining

Postmining Land Use: Wildlife habitat

Variances from Reclamation Standards (Rule R647) Granted: None

Soils and Geology

Soil Description: Affected area is within previously disturbed lands and the Clapper Gravelly Loam and the Milok Fine Sandy Loam soil types. These soil types are rated as fair and good respectively for revegetation.

pH: 7.6

Special Handling Problems: None

Geology Description: Stratigraphy rocks in the vicinity of the pit include the Cretaceous Mesa Verde group, the Tertiary Duchesne River Formation, and the Quaternary colluvium and alluvium (in ascending order of occurrence). These occur as slope cover and valley fill on the Duchesne River Formation in the western part of the study area. They contribute to the volume of overburden overlying the tar sand. The oldest rocks in the pit are assigned to the Mesa Verde Group. They consist predominately of a fine to medium grained cross-bedded sandstone that is probably part of the Rim Rock sandstone. The eastern part of the study area is everywhere underlain by this. The Mesa Verde group sandstones are immediately overlain with variegated beds of the Duchesne River Formations. The contact between the older Cretaceous sequence and Duchesne River Formation is an angular unconformity [break in the geologic record] that is well exposed along the western highwall just above the 5,900 foot level in the tar sand pit. This surface is undulatory at least on the order of a few feet. It in turn is overlain by the Brennan Basin Member of the Duchesne River Formation which consists in the pit of friable [ebble to cobble conglomerate, sandstone, and mudstone. Rocks within the tar sand pit are cut by both northwest and northeast trending faults. At least 150 feet of displacement has occurred at the fault along the northeast margin of the study area.

Hydrology

Ground Water Description: Mining has reached the base of the tar sands formation and no ground water has been encountered during the mining operations. The tar sand formation dips to the south-southwest away from any known wells. Therefore, there is no potential for intercepting or impacting any ground water resources. The Division of Water Quality has issued a Permit-By-Rule letter eliminating the requirement for a ground water discharge permit. There are no wells, pipelines, or boreholes within 500 feet of the lease property boundary.

Surface Water Description: There are no bodies of water within 500 feet of the site. There are small ephemeral drainages near the mine site and the extraction facility. Undisturbed area runoff will be diverted away from the mine site by the use of berms. Any onsite surface runoff will be collected in a sump at the bottom of the pit and used for dust control or pumped to the extraction facility.

Water Monitoring Plan: The tar sands processing operation is a "Non Discharging Facility", therefore no surface water monitoring will be required. Ground water resources will not be impacted by the mining operations, therefore no ground water monitoring plan is necessary.

Ecology

Vegetation Type(s): Sagebrush community is dominated by wyoming big sage, indian ricegrass and galleta grass. The Pinyon/Juniper woodland is dominated by pinyon pine, utah juniper, wyoming big sagebrush and galleta grass.

Percent Surrounding Vegetative Cover: Sagebrush community - 56.4%; Pinyon/Juniper woodland - 41.2%

Wildlife Concerns: None

Surface Facilities: The following is a list of the proposed surface facilities: office/lab building, change house building, feed breaker, crusher, countercurrent washer, 3 phase decanter, generator, screw conveyor, heater pump water heat tank, pre-mix tank, skimming tank, wifley pump, auger tank, diesel storage tank, water tank, wash screw, settling tanks, centrifuge, solidification system, belt conveyor, radial stacker, surface water recycle tank, fresh water tank, floc trailer, boiler, propane tank, swaco generator, 2 fire trailers, VOC scrubber, naphtha storage tank, asphalt product storage tank, 2 HVGO storage tanks, solvent heat tank, solvent storage tank, a variety of equipment making up a distillation unit, roads, proposed drainage control structures, topsoil storage areas, overburden dumps, process waste facilities, overburden disposal areas, solid and liquid waste disposal areas, treatment and containment facilities. Concrete foundations will be required for the storage tanks, process heaters, distillation towers, conveyors, screws, pumps and air coolers. Other equipment and facilities will be semi-permanent. The natural gas and electricity required for the equipment and facilities will be provided by Utah Gas Service and Utah Power via underground facilities.

Mining and Reclamation Plan Summary:

During Operations:

Tar sand will be mined using hydraulic shovels and asphalt reclaimers. Blasting is not anticipated in the tar sand mining operation. The mined tar sand is then loaded into trucks for haulage to a stockpile at the

extraction facility. Raw tar sand will be processed with solvent to produce bitumen. Bitumen will be processed through distillation into high quality asphalt and light distillate products. The bitumen will be separated from the solvent in the atmospheric and vacuum distillation towers with solvent recycled back to the extraction facility. Clean waste sand will be generated as a by-product. This sand will be used to backfill the adjacent tar sand pit which Uintah County has mined for many years.

After Operations:

At the end of the project, complete reclamation will be performed. Initially waste sand from the solvent extraction process will be placed against the highwall in the existing Uintah County pit area. Waste sand will continue to be stacked to the east and tied into the overburden stockpile/berm until the overall slope is restored and the highwall is eliminated. When the existing pit has reached capacity and mining progresses to the south, contemporaneous reclamation will be performed. Overburden from the newly stripped area will be placed on older previously mined out areas of the pit and rough graded. Topsoil from the newly stripped area will then be placed over the recontoured areas and reseeded. At final reclamation, concrete foundations from the processing facilities will be broken up and buried in the pit area with a minimum of three feet of cover. Tanks and associated processing structures and facilities will be demolished and/or removed from the site.

In the Uintah County disturbed area, topsoil was historically removed and mixed with overburden and is not available for replacement. Due to the scarcity of topsoil, retopsoiling efforts will be focused on areas where adequate topsoil and moisture are available to support sustained revegetation.

Reclamation activities will be concentrated where the maximum benefit can be achieved in a coordinated effort with DOGM. Programs to augment the natural topsoil with recycled composts, sewage sludge or agricultural waste will be explored if cost effective.

Surety

Amount: \$118,160

Form: Certificate of Deposit

Renewable Term: 5 years (2001)

M/047/032



BUENAVENTURA RESOURCES
CORPORATION

ASPHALT RIDGE, UTAH

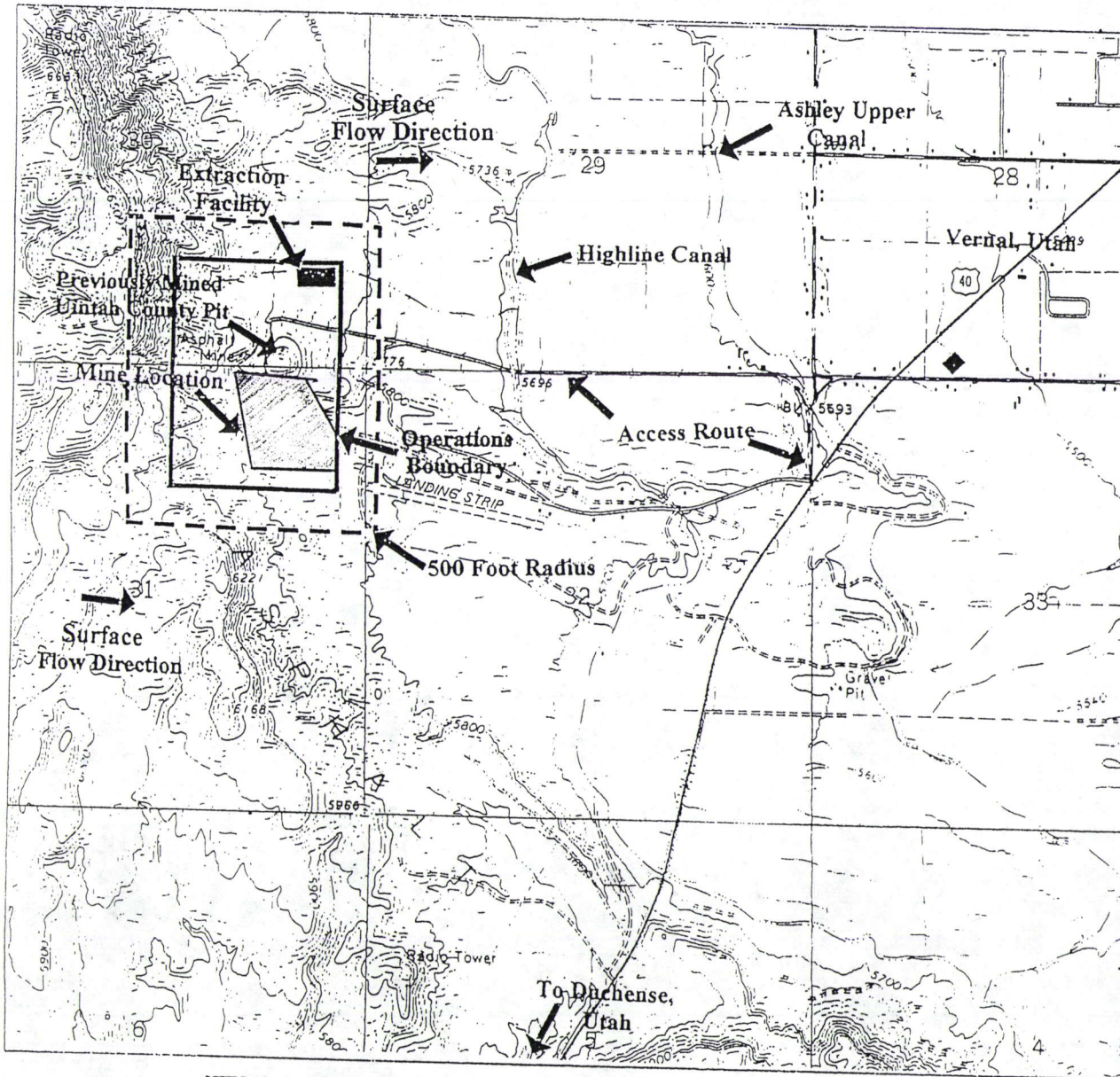
TOPOGRAPHIC BASE MAP

LEGEND

	CANALS
	INTERMITTENT STREAM
	US HIGHWAY 40
	SECONDARY HIGHWAY
	LIGHT DUTY ROAD
	UNIMPROVED ROAD
	LANDING STRIP
	TOPOGRAPHIC CONTOURS
	SECTION, TOWNSHIP BORDERS
	BUILDINGS
	LEASE BOUNDARY
	500 FT RADIUS

SCALE

1" = 2000 FT



REFERENCE: ADAPTED FROM THE USGS QUADRANGLE ENTITLED VERNAL, UTAH-1978

PROJECT # 95059

FIGURE 2